

To: Distribution
From: Technical Services Department
Date: January 9, 1997
Subject: Signature Detector Cleaning Procedure

Recommended Preventive Maintenance Schedule

Component	Testing Interval	Testing Procedure
SIGA-HFS SIGA-HRS	Semi-Annually	<ol style="list-style-type: none"> 1 Visually inspect the heat detector. Verify Green LED flashing. 2 Put the detector/zone in TEST mode. 3 Hold the heating device (1200- to 1500-watt commercial hair blow dryer recommended) approximately 1-inch from the detector, directed towards the heat entry slots. CAUTION: Do not use excessive heat for too long or permanent detector damage may result. 4 Turn the blower on at its highest setting. The detector should alarm within 10 to 15 seconds. 5 Verify that a detector activation indication is listed on the printer.
SIGA-IS SIGA-PS SIGA-PHS SIGA-IPHS	Annually	<ol style="list-style-type: none"> 1 Visually inspect the smoke detector. Verify Green LED flashing. 2 Put the detector/zone in TEST mode. 3 If a detector functional test is required, use the Home Safeguard Smoke Detector Tester with a 1490 adapter/tube accessory. Test per instructions stated on the Home Safeguard can. 4 Verify that a detector activation indication is listed on the printer. 5 Run a detector sensitivity and compensation report.

Detector Cleaning Procedure

Clean the detectors using a conventional vacuum cleaner equipped with the EST Detector Cleaning Tool (P/N 280037). The tool connects to a 1.5-inch (3.8 cm) suction hose/extension tube. The tool removes loose dust and debris by creating a high velocity vortex scrubbing action around the detector.

To clean the detector:

1. Disable the detector/zone to prevent false alarms.
2. Use conventional vacuum cleaner brush to remove visible cobwebs, etc. from the immediate area of the detector.
3. With the Detector Cleaning Tool connected to the vacuum, place the tool over the detector head for approx. 1 minute while rotating back and forth. See Figure 1.
4. Check and record the detector's dirty level reading to verify the effectiveness of cleaning.

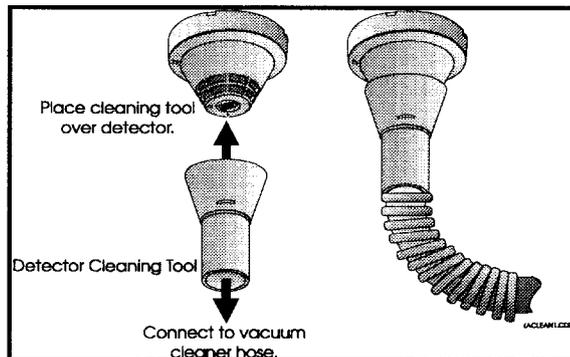


Figure 1 - Detector Cleaning Tool

Recording Detector Sensitivity and Available Compensation

Signature Series environmental compensation circuits and the alarm algorithm used in Signature Series detectors *guarantee* that a detector's sensitivity setting is maintained as long as a detector has compensation headroom. When the detector reaches 80% dirty, the system generates a maintenance alert indicating the detector should be cleaned in the near future. When the detector reaches 100% dirty, a detector trouble condition is annunciated.

In order to properly judge the effectiveness of the detector cleaning process, you must observe the effect cleaning had on the detector's dirtiness level. This can be accomplished using the SIGA-PRO Service Tool. Follow the procedure supplied with the SIGA-PRO.

When the SIGA-PRO is not available, you will not be able to verify dirtiness levels after cleaning. In this case, clean the detector and operate for a minimum of two hours, then:

1. Restart the loop controller.
All maintenance indications will restore if the detectors have been cleaned properly.
2. Run the detector sensitivity routine to print a list of detector sensitivity and compensation readings.